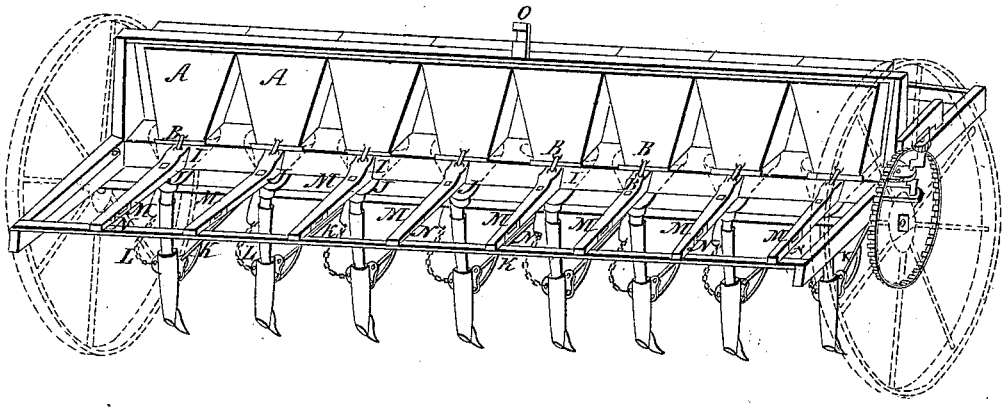
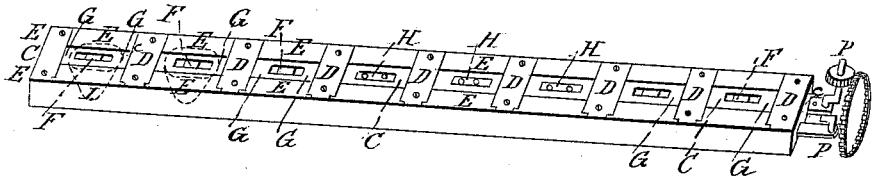
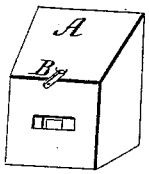
E. STEACY.

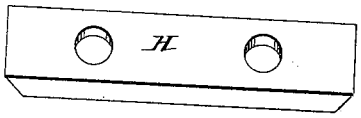
Grain Drill.

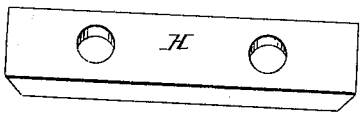
No. 6,497. Patented June 5, 1849.

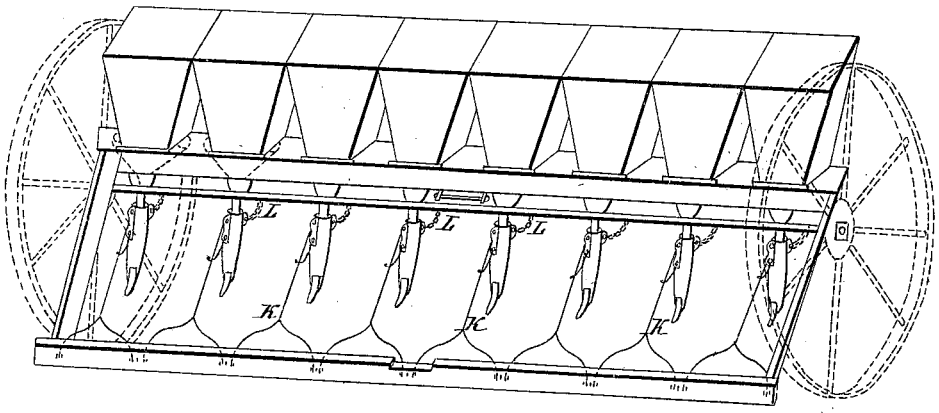












UNITED STATES PATENT OFFICE.

EDWARD STEACY, OF STRASBURG, PENNSYLVANIA.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. **6,497**, dated June 5, 1849.

To all whom it may concern:

Be it known that I, EDWARD STEACY, of the borough of Strasburg, Strasburg township, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Improvement in Grain-Drills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the hoppers, each measuring a peck, in which the grain is to be put. The bottom is a cast-iron plate with an oblong aperture, through which the grain passes onto the shaker. The lower side of the long aperture has a recess at each end half the thickness of the bottom plate, extending in length one-half the length of the aperture and of the same width, which recesses preserve the grain from being broken as it falls through the shaker into the funnels. The hoppers shift between iron plates screwed on top of the frame-work, and the plates, by lapping over the outside edges of the bottoms of the hoppers, confine the hoppers to their place, and by raising or lowering the levers the hoppers are shifted backward and forward by a coupling attached to the back part of the hopper and to the levers.

B is the coupling attached to the hopper and lever.

C, the shaker, is an iron plate with oblong apertures, extending the whole width of the machine between the carriage-wheels, and confined between two iron plates of the same length (upon which the hoppers rest) to keep its motion perfectly even and straight, and resting or working on eight iron plates, the width of the shaker, laid crosswise and fastened by screws to the frame-work. The shaker is made to work or play in this ordinary-sized grain-drill about one and three-fourths inch by means of a crank attached to one end, the journals of which crank work in iron boxes, the upper journal passing through and keyed or fastened permanently to a pinion, which pinion is put in motion by a beveled-cog wheel screwed on to the spokes of the carriage-wheel.

D is the iron plates with a rabbet, between which the hoppers shift; E, the long iron plates on each side of the shaker to preserve the regular motion of the shaker, and on which the hoppers rest; F, the short iron plates laid crosswise underneath the shaker, upon which the shaker slides; G, the oblong apertures of the shaker, in which dies are put to fit closely, and in which dies are two circular holes through which the grain passes into the funnels beneath; H, the dies, having two circular holes, varying in size according to the size of the grain to be sown, about one and one-half inch apart, and by regulating the size of the circular holes any required quantity of grain may be sown. If the eight hoppers hold a peck each, a circular hole five-eighths of an inch in diameter sows two bushels, one and one-half inch in diameter one bushel and three pecks, and so on.

I is the funnel underneath the shaker into which the grain falls; J, a second funnel attached to the frame-work, which receives the grain from the upper funnel, and to which a leather funnel or spout is attached through which the grain is conducted into the hollow cast-iron teeth or shovels, from whence the grain is distributed and sown; K, the draft-irons, attached to the front of the shovels and front part of the frame-work, which drag the shovels along; L, the chains attached to the hind part of the shovels, and by a hook to the levers to raise or lower the shovels; M, the handles or levers attached at one end to the frame-work by a hinge to work up and down, with the other ends resting on a long handle the whole width of the machine, so that all the levers may be raised at one time to raise the shovels, and shift the hoppers to continue or stop the seeding; N, the catch attached to the outer end of the lever to fasten the lever to the top frame-work or cross-piece; O, a catch attached to the center of the upper frame-work that holds the long handle when it is raised, and by which all the levers are held and kept raised. P, the shaft of the crank, works perpendicularly.

By shifting the hoppers backward and forward, with a short coupling attached to the back part of the hoppers and to the levers, I continue or stop the seeding, and as the grain falls through the bottoms of the hoppers it passes through dies, each with two circular holes about one-half inch in diameter, which dies are made to fit in oblong apertures in an iron plate or shaker underneath the hoppers. The shaker extends the whole width of the ma-

chine between the carriage-wheels, and is confined by two iron plates of the same length (upon which the hoppers rest) to keep its motion perfectly even and straight. The shaker rests or works on short iron plates laid crosswise, and fastened by screws to the frame-work.

The shaker is put in motion by means of a crank attached to one end, the journals of the crank working in iron boxes, the upper journal passing through and keyed or fastened permanently to a pinion, which pinion is put in motion by a beveled-cog wheel screwed onto the spokes of the carriage-wheel, also the bottom of the hoppers, which is a cast-iron plate, with an oblong aperture through which the grain passes onto the shaker. The lower side of the oblong aperture has a recess at each end half the thickness of the bottom plate, extending in length one-half the length of the aperture and of the same width, which recesses preserve the grain from being broken as it falls through the shaker.

What I claim as my invention is—

Shifting the hoppers back and forward with couplings and levers, substantially as set forth, to continue or stop the seeding, in combination with the shaker having movable dies therein, for regulating the quantity of seed and distributing the same, and moved substantially as herein described.

EDWARD STEACY.

Witnesses:

J. FRANKLIN REIGART,

P. DONNELLY.